

U.S. Department of Labor
Mine Safety and Health Administration

Strategic Plan

Fiscal Years 1999–2004

September 1999

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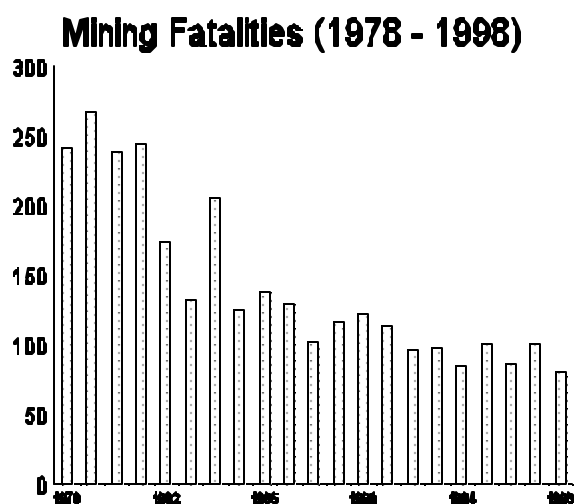
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Section 1: Introduction

The first priority and concern of everyone in the mining community must be the safety and health of the miner. The Mine Safety and Health Administration (MSHA) is committed to working with the mining community to find new ways to improve working conditions in the Nation's mines. MSHA was established in 1978 as a result of the Federal Mine Safety and Health Act of 1977 (Mine Act) which transferred the Federal enforcement program from the Department of the Interior to the Department of Labor and placed coal mines and metal and nonmetal mines under a single law.

Growing cooperation among industry, labor, and government has dramatically reduced mine fatalities. Measured in the thousands earlier in the century, fatalities have dropped from 242 in 1978 to 80 in 1998—the lowest number of fatalities in the history of American mining. The mining community has much to be proud of, yet more can and must be done.



Mining fatalities were at their lowest level in 1998

In spite of these trends, the mining environment is among the most hazardous of workplaces. Deaths and serious injuries from unsafe and

unhealthful conditions in mines are unacceptable. Constant vigilance on the part of mine operators and miners is required to mitigate the conditions that cause accidents, injuries and illnesses.

MSHA published its first strategic plan for FY 1997–FY 2002 in September 1997, as required by the Government Performance and Results Act (GPRA) of 1993. In September 1998, a revised FY 1997–2002 Strategic Plan was published in accordance with the new strategic goals and objectives of the Department of Labor. This current plan continues the process of identifying MSHA's results, goals and performance objectives of reducing fatalities, injuries, and illnesses, and laying out Agency strategies for achieving them. This requires a flexible and responsive organization with the capabilities to address constantly changing health and safety challenges efficiently and effectively.

Mission

The mission of the Mine Safety and Health Administration (MSHA) is to protect the safety and health of the Nation's miners. The Mine Act requires MSHA to establish and determine compliance with Federal safety and health standards through inspections and investigations, and to work cooperatively with the mining industry, labor, and the States to improve training programs aimed at preventing accidents and occupationally-caused illnesses.

Vision

MSHA's vision is to be a leading agent for change, in cooperation with the mining community, to eliminate preventable injuries, deaths, and illnesses in the Nation's mines and to

enhance its position as the world's authority on mine safety and health.

The Mine Safety and Health Administration

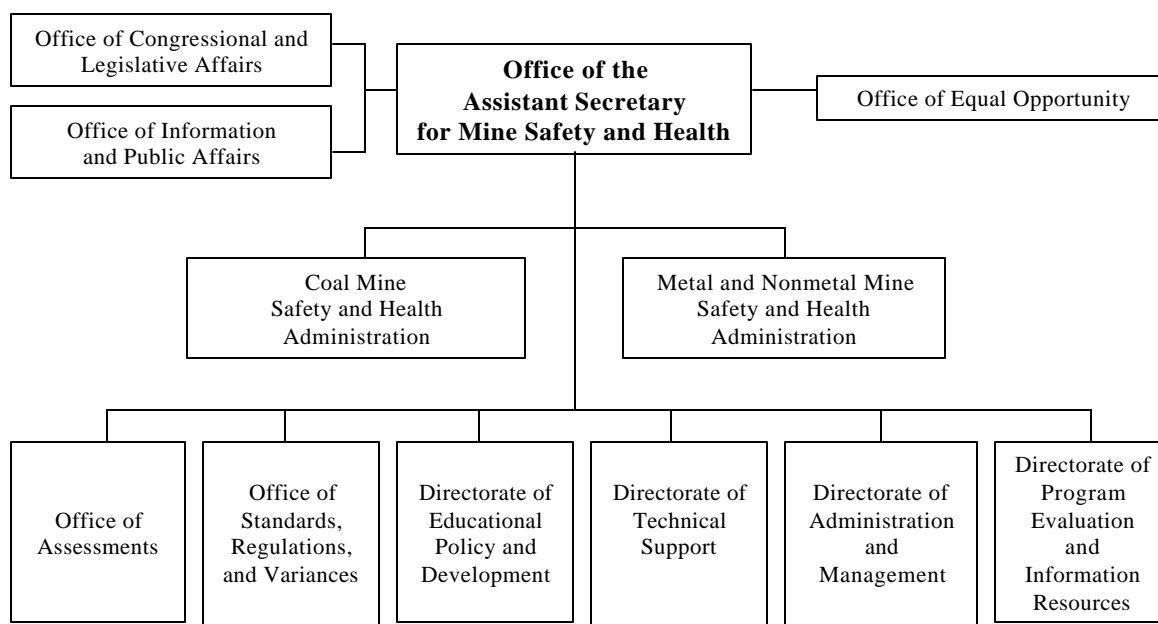
MSHA is headed by an Assistant Secretary of Labor for Mine Safety and Health. The Agency carries out its mission through its enforcement, compliance, and support organizations in a synergistic effort. The agency has its headquarters in Arlington, Virginia, and includes 11 Coal Mine Safety and Health districts and associated field offices and 6 Metal and Nonmetal Mine Safety and Health districts and associated field offices. MSHA also operates the Mine Health and Safety Academy in Beckley, West Virginia—one of the 7 permanent federal academies; the Pittsburgh Safety and Health Technology Center in Bruceton, Pennsylvania; and the Approval and Certification Center in Triadelphia, West

Virginia. The MSHA FY 1999 budget is \$215 million and the Agency has a workforce of approximately 2,200 people.

MSHA has the following organizational components:

- C Office of the Assistant Secretary
- C Coal Mine Safety and Health Administration
- C Metal and Nonmetal Mine Safety and Health Administration
- C Office of Assessments
- C Office of Standards, Regulations and Variances
- C Directorate of Educational Policy and Development
- C Directorate of Technical Support
- C Directorate of Administration and Management
- C Directorate of Program Evaluation and Information Resources

Mine Safety and Health Administration Organization



Section 2: The Changing Workforce and Workplace

The mining environment is inherently a hazardous place to work. Unseen geologic instabilities, constantly changing terrain, and the prevalence of large and complex haulage and mining equipment are a few of the factors that make mine safety an occupational challenge. Exposures to dust, noise, and diesel exhaust are recognized as pervasive health hazards to miners resulting in debilitating and fatal lung diseases, acute hearing loss, and other potentially damaging illnesses. While coal workers' pneumoconiosis (black lung) and silicosis are preventable diseases, miners are still succumbing to them.

Production demands have been rising in the metal and nonmetal mining sector, particularly for aggregates—crushed stone, sand, and gravel. United States Geological Survey (USGS) data show a steady increase in the production of crushed stone, sand, and gravel since 1995, and in 1998 production increased between 5 and 7 percent over 1997 levels. Demand for these basic building materials is expected to continue to rise as a result of the Transportation Equity Act for the 21st Century (TEA 21). The act earmarked more than \$200 billion dollars over a six year period that began in FY 1998 for transportation projects, including unprecedented investments in highway, bridge, and mass transit construction and repair. Workplace safety and health will continue to compete for attention with burgeoning production at sites that produce these materials as indicated by the fact that in FY 1998, 63% of the metal and nonmetal fatal accidents occurred in the aggregates industries.

Strong demand can also be expected to cause an increase in the presence of new, inexperienced mine operators and inexperienced miners—a potentially fatal mix when effective health and

safety training is lacking. With the current low rate of unemployment, many hazardous mining jobs are being filled by low-skilled workers, who are particularly vulnerable to job-site hazards. It is not uncommon that MSHA fatal accident investigations determine that accident victims received little or no training, and were consequently ill-equipped to avoid workplace hazards or otherwise protect themselves. In order to meet demand many operators will also use contractors. These independent contractors are often small companies with limited resources for health and safety. Contractor employees are more than four times more likely to be killed on the job compared to metal and nonmetal mine employees.

The Mine Act requires all miners to receive training prior to working in a mine and annual refresher training while employed as a miner. In 1980, Congress added language to MSHA's appropriations bill prohibiting MSHA from expending funds to carry out the provisions of Section 115 of the Mine Act with respect to shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate or surface limestone mines. Since this amendment was added, MSHA has been restrained from enforcing training requirements or providing training assistance to over 10,000 aggregate operations, resulting in a significant void in providing safety and health awareness and oversight of training requirements for a large portion of the mining community. However, the FY 1999 appropriations bill amended the rider language to permit MSHA to develop training regulations (standards) for these mines. Congressional report language directed MSHA to promulgate these regulations before the end of FY 1999. MSHA held 7 pre-proposal public meetings to gather input from the mining

community on development of training regulations. MSHA published a regulation in September 1999 to become effective on October 20, 2000.

Coal fuels 57% of the electricity production in the United States and is also used for residential and commercial heating, for the production of coke for the steel industry, and as a raw material in the chemical industry. There has been a slow increase in coal production—a result of greater productivity from fewer mines and miners. Coal production is in the midst of transition—underground mines giving way to surface mines, large western state surface mining operations in contrast to smaller eastern state operations, and increasing pressures of foreign competition, to name a few. The nature and extent of the changes will have an impact on the coal mining workplace

and workforce. Deregulation of the utility industry may also impact mine safety and health.

Mining today is a global industry. Even though mines are often found in remote locations, the industry tends to be dominated by multi-national corporations that maintain operations on two or more continents and who compete with one another and with smaller more specialized firms in international commodity markets. These firms are interconnected through a network of corporate and contractual relationships and shared technologies. Yet the various national government mining agencies charged with regulating the industry, and in particular with safeguarding the safety and health of mine workers, have traditionally approached these tasks in isolation from each other.



Extremely large haulage equipment found at many mines pose unique safety challenges

Section 3: MSHA Strategic and Outcome Goals

Department of Labor Strategic and Outcome Goals

Goal 1—A Prepared Workforce—Enhance opportunities for America's workforce

- C Increase employment, earnings, and assistance
- C Increase the number of youth making a successful transition to work
- C Improve the effectiveness of information and analysis on the U.S. economy

Goal 2—A Secure Workforce—Promote the economic security of workers and families

- C Increase compliance with worker protection laws
- C Protect worker benefits
- C Increase employment and earnings for retrained workers

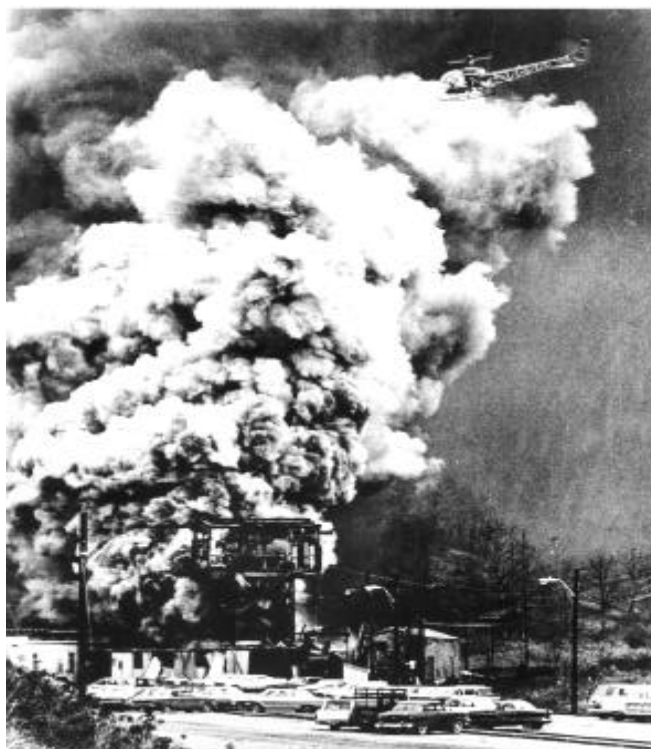
Goal 3—Quality Workplaces— Foster quality workplaces that are safe, healthy, and fair

- C Reduce workplace injuries, illnesses, and fatalities
- C Foster equal opportunity workplaces
- C Increase availability and effectiveness of programs that support a greater balance between work and family
- C Reduce exploitation of child labor and address core international labor standards issues

MSHA Strategic and Performance Goals Supporting DOL Goals

The strategic goals and performance objectives in this plan address the persistent safety and health problems that exist in the mining industry. In FY 1998/1999, MSHA worked to reduce miners' injuries and overexposures to health hazards by strengthening existing programs, developing and implementing special emphasis initiatives, enhancing education and training outreach, and revising and developing necessary regulations. These efforts continue to form the basis for setting the performance objectives each year through FY 2004.

The 1968 mining disaster in Farmington, West Virginia, was a factor in passage of enhanced federal mine safety legislation



DOL Goal 3: *Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair*

DOL Outcome Goal 3.1: *Reduce workplace injuries, illnesses, and fatalities*

MSHA Strategic Goal 1: *Reduce injuries in the Nation's mines*

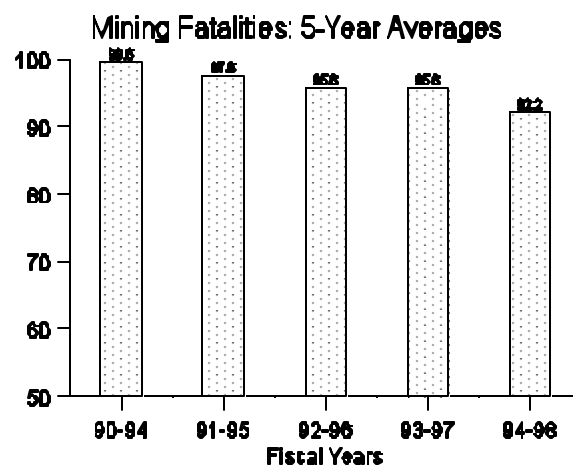
MSHA Strategic Goal 1: Reduce injuries in the Nation's mines

MSHA Performance Goals:

- 1.1 Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.
- 1.2 Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines.

Strategies to achieve goals:

- C Conduct annual inspections required by the Mine Act and inspections of mines experiencing significant methane gas liberation or a high incidence rate of serious accidents and injuries.
- C Conduct other enforcement activities including mandated investigations that are prompted by accidents, by safety and discrimination complaints, and by the identification of mine operators who exhibit reckless disregard for safety or health standards or who refuse to comply with orders issued under the Act.
- C Investigate fatal accidents and serious nonfatal accidents. These investigations provide valuable information which is also used by industry and labor organizations to develop strategies to prevent similar occurrences and to promote awareness in areas of concern.



5-year-average fatalities have declined steadily during the 1990s

- C Conduct activities designed to assist industry and labor in improving safety conditions and practices to include assisting mine operators in solving difficult safety problems and directing informational outreach programs to focus attention on high incidence accident causes. Conduct targeted “safety sweeps”

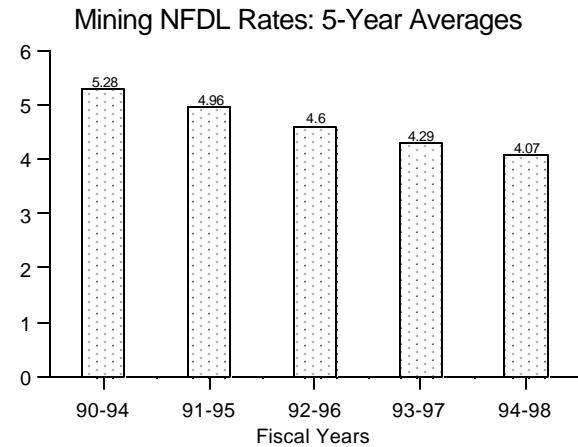
to educate and assist mine workers and operators in ways to improve the safety environment as a certain trend becomes evident.

- C Provide onsite individual mine safety training program evaluations. Distribute safety training materials. Advise and provide “best practices” information tailored to individual mining operations. Incorporate those “best practices” into mandatory standards when appropriate.
- C Expand existing outreach efforts to identify and to communicate with historically non-participating audiences. Four discrete target audiences where intervention could have a significant impact are: new operators, new miners, non-participatory operators, and contractors. Non-participatory operators are those who do not routinely interact with MSHA, trade associations, or state agencies in educational activities on safety and health. Small non-participatory operators are less likely to have a formal safety and health program or have direct access to safety and health professionals.
- C Revitalize anti-smoking initiatives through direct contact with miners, training, and other channels. (Smoking in underground mines presents an ignition source for possible gas explosions.)
- C Sponsor, conduct, and participate in mine rescue contests.
- C Award grant funds to States.
- C Ensure that all miners are provided necessary training by developing a final training rule that will apply at mines where

MSHA had been prohibited from enforcing existing training requirements.

- C Provide training for MSHA inspectors to maintain a high level of professionalism and proficiency. This training includes awareness of state-of-the-art mining methods and working knowledge of new mining equipment. This training will enhance MSHA’s ability to effectively enforce the mining laws and advise mines in ways to improve health and safety conditions.
- C Provide technical training to members of the mining community in new methodologies and practices that will maintain and improve health and safety working conditions.
- C Improve education and training through verification of student ability to perform training objectives and greater use of new methods of providing training.
- C Improve the rulemaking process by: expanding early public participation to gather the best available evidence, looking closely at the interrelated impact of regulations from multiple agencies, increasing the number of alternatives considered during the review and development of regulations, and acquiring the expertise necessary to address complex issues. Continue to review existing regulations that are outdated, obsolete, inadequate, redundant, or otherwise need revision.
- C Expand the user-friendly, public database that contains information needed by the mining industry and other interest groups, such as statistical data on fatalities, accidents, injuries, and health sampling.

- C Provide timely approval/certification of mining plans and equipment.
- C Improve the application of special assessments overall and for those civil penalty violations determined to have unique and aggravating circumstances, such as repeat health standard violations, smoking article violations, untrained miner violations, etc.
- C Improve the industry's understanding of the purpose of and procedures used in the civil penalty process through seminars, meetings, and informational presentations.
- C Increase effective collection of civil penalties.
- C Enhance international cooperation in order to promote injury and illness prevention through international mine safety and health standards, to articulate common concerns in dealings with industry throughout the world, and to pool expertise and the exchange of technical information.



5-year-average lost day injury rates have declined steadily during the 1990s

DOL Goal 3: *Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair*

DOL Outcome Goal 3.1: *Reduce workplace injuries, illnesses, and fatalities*

MSHA Strategic Goal 2: *Reduce miners' overexposure to health hazards*

MSHA Strategic Goal 2: Reduce miners' overexposure to health hazards

MSHA Performance Goals:

- 2.1 Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard.
- 2.2 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.
- 2.3 Reduce by 20% the percentage of cases where abatement time for silica overexposures exceeded 6 months in metal and nonmetal mines.
- 2.4 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.

Strategies to achieve goals:

- | | |
|--|--|
| C Conduct annual inspections required by the Mine Act and other enforcement activities including mandated investigations that are prompted by the identification of mine operators who exhibit reckless disregard for health standards or who refuse to comply with orders issued under the Act. | diesel particulates. |
| C Conduct activities designed to assist industry and labor in improving and health conditions and practices to include assisting mine operators in solving difficult health problems and directing informational outreach programs to occupations with a high incidence of overexposures to airborne contaminants and physical agents, with particular attention to dust, noise, and | C Revise existing standards and policies for respirable coal mine dust and crystalline silica, propose new rules on limiting exposure to diesel particulates in underground mines, and finalize revisions to existing standards for occupational noise exposure. |
| | C Continue to implement the recommendations of the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers by sampling respirable dust with greater frequency (each underground mine four times a year and each surface mine |

twice a year), increasing monitoring inspections at mines that continue to have difficulty complying with dust standards, focusing on the maintenance and operation of required dust controls and the adequacy of the requirement for operators to collect representative dust samples, and offering educational and training assistance on effective dust controls for those who ask for it.



- C Increase targeted inspection activities and increase sampling presence in metal and nonmetal mines with excessive dust and noise levels.
- C Decrease time between evaluations of mine ventilation systems.
- C Refine baseline data on dust, crystalline silica and noise exposure.



- C Award grant funds to States.
- C Provide training, training materials, and hazard awareness programs to the mining industry concerning mining and dust health hazards associated with mining operations.
- C Ensure that all mines receive necessary training by finalizing miner training regulations that will apply at mines where MSHA has been prohibited from enforcing existing miner training requirements.
- C Train MSHA inspectors in the current methodologies for reducing hazardous health conditions in the mining environment.
- C Improve education and training through verification of student ability to perform training objectives and greater use of new methods of providing training.
- C Evaluate onsite individual mine health training programs. Advise and provide tailored “best practices” information to reduce health hazards. Incorporate those best practices into rulemaking when appropriate.
- C Improve the rulemaking process by: expanding early public participation to gather the best available evidence, looking closely at the interrelated impact of regulations from multiple agencies, increasing the number of alternatives considered during the review and development of regulations, and acquiring the expertise necessary to address complex issues. Continue to review existing regulations that are outdated, obsolete, inadequate, redundant, or otherwise need revision.

- C Improve the application of special assessments overall and for those civil penalty violations determined to have unique and aggravating circumstances, such as repeat health standard violations, smoking article violations, untrained miner violations, etc.
- C Improve the industry's understanding of the purpose of and procedures used in the civil penalty process through seminars, meetings, and informational presentations.
- C Increase effective collection of civil

penalties.

- C Provide timely approval/certification of mining plans and equipment.
- C Pursue development of technological advances such as real-time dust monitors.
- C Enhance international cooperation in order to promote injury and illness prevention through international mine safety and health standards, to articulate common concerns in dealings with industry throughout the world, and to pool expertise and the exchange of technical information.



Dust control, monitoring, and miner training are key factors in eliminating occupational lung diseases

Key External Factors That May Affect Performance

The mining environment, whether underground or surface, is complex and ever-changing. Geologic conditions are difficult to assess and can conceal unpredictable dangers. Hazardous conditions eliminated one day can reoccur the next, or where one hazard is corrected another may appear. This requires constant vigilance by MSHA in its education and training outreach to promote hazard awareness and hazard targeting activities.

Business decisions or product demand can adversely impact health and safety in the workplace. The 1998 Transportation Equity Act provided over \$200 billion for transportation projects—highway, bridge, and mass transit construction and repair. A healthy economy and low interest rates will likely continue to fuel other construction activity. The aggregates industry is expected to increase production to meet demand, resulting in expanded mining operations, additional work shifts, longer workdays, and an influx of both inexperienced miners and inexperienced owner-operators. Low unemployment rates may draw new miners from

workforces that have less experience and training. To meet demand many operators will use contractors, many of whom are small in size and have limited resources for health and safety.

The deregulation of electricity providers is leading to competitive pressures in the coal industry. Electric utilities, which once sought a stable supply of coal at a reasonable rate, must now seek out low cost suppliers to remain competitive. Such pressures in the mining industry can lead to “cutting corners” to reduce costs.

Technology advances in mining equipment may affect operations, productivity, and worker safety and health.

MSHA must remain flexible so that its plans are able to reflect needed increases in inspections at mines experiencing increased production to ensure compliance with safety and health standards, including new miner training requirements and hazard awareness.

Section 4: Relationship Between Goals in the Annual Performance Plan and the Strategic Plan

The goals and performance measures presented in this FY 1999–2004 Strategic Plan continue the Agency’s integration with the Department of Labor’s strategic goals and performance measures. MSHA’s annual performance objectives are near-term statements of the strategic plan objectives. They are linked to each of the Agency’s program activities in support of the MSHA strategic goals to assure safe and healthy working conditions in the Nation’s mines.

The chart below provides a summary of strategies and associated MSHA program areas responsible for the integrated activities conducted to accomplish annual performance plan goals. These program areas are: Coal Mine Safety and Health (C), Metal and Nonmetal Safety and Health (M), Standards (S), Educational Policy and Development (E), Technical Support (T), and Assessments (A). The Program Administration program area provides overall support to the Agency.

Summary of Strategies	Program Areas					
	C	M	S	E	T	A
Conduct inspections and other on-site enforcement activities	!	!				
Investigate fatal accidents and serious nonfatal accidents	!	!			!	
Assist industry and labor in solving safety and health problems	!	!		!	!	
Conduct informational outreach	!	!	!	!	!	!
Provide onsite individual mine training program evaluations				!		
Sponsor, conduct, and/or participate in mine rescue contests	!	!		!	!	
Award grant funds to States				!		
Ensure that all miners are provided necessary training	!	!		!		
Provide training for MSHA inspectors and the mining community	!	!		!		
Improve the rulemaking process			!			
Propose/revise/finalize standards and rules	!	!	!	!	!	
Provide approval/certification of mining plans and equipment					!	
Pursue development of technological advances					!	
Improve the application of special assessments						!
Improve industry’s understanding of the civil penalty process						!
Increase effective collection of civil penalties						!
Enhance international cooperation	!	!	!	!	!	

The performance goals in the annual MSHA performance plans are intermediate steps on the path toward achieving the long-term results of the

Strategic Plan. These steps include concerted efforts to combat high priority Agency issues such as the level of accidents and fatalities at metal and nonmetal mines and to bring greater effectiveness in respirable coal dust sampling.

Section 5: Consultation with Stakeholders

MSHA's external stakeholders include: Congress, miners and labor organizations, mine operators and trade associations, independent contractors who perform work on mine property, manufacturers who sell equipment and products for use in mines, persons who provide services such as training for miners or emergency rescue capabilities to mines, States that participate in MSHA's State Grant program, and other Federal agencies. The draft strategic plan was sent to many of these stakeholders for review and comment.

MSHA stays in constant contact with its stakeholders through meetings with interest groups in the mining community to clearly identify their expectations and concerns and implement changes that will result in positive measurable outcomes. Other avenues of stakeholder feedback are regional and national forums, as well as rulemaking hearings in the mining community. Major MSHA initiatives in mine health—and their influence on MSHA performance measures—are a direct result of the

Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers and the National Campaign to Eliminate Silicosis.

Development of new rules and regulations requires close consultation with stakeholders. One example of this is the proposed training regulation. Congress directed MSHA to develop training regulations that will apply at mines where the Agency has been prohibited from enforcing existing requirements since 1980. To obtain the broadest possible input in the development of the proposed rule, MSHA held public meetings at 7 locations across the country in December 1998 and January 1999. The proposal was published in the *Federal Register* on April 14, 1999, and is based in part on comments, suggestions, and draft proposal language submitted to MSHA by industry and labor representatives, as well as other interested parties.

As the Assistant Secretary meets with the mining community on safety and health issues, he presents MSHA's responsibilities under GPRA and the Agency's strategic and performance plans. The MSHA Strategic and Annual Performance Plans are placed on the MSHA website. The Internet is used as a feedback mechanism with the mining community—including direct e-mail access to the Assistant Secretary.

As a means to encourage feedback and gather input from the mining community concerning the manner in which MSHA conducts its core operations and establishes goals and objectives, District offices convene "problem solving" meetings with representatives from labor and management. The purpose of these meetings is to identify issues affecting the safety and health of miners and develop a consensus strategy for addressing these issues satisfactorily.

In a like manner, MSHA senior staff meets with representatives from industry trade unions, officials from labor organizations and corporate officials from mining companies to discuss safety and health issues which are national in scope. Often the feedback from these meetings provides MSHA with additional information and recommendations which can be incorporated in Agency enforcement training or research

strategies.

MSHA plans to expand existing outreach efforts to identify and to communicate with historically non-participating audiences. Four discrete target audiences where increased communication could have a significant impact are: new operators, new miners, non-participatory operators, and contractors.

Section 6: Cross-Cutting Coordination

MSHA maintains a number of automated data systems which capture health and safety statistics: mine employment and coal production data, inspection and investigation information, civil penalty assessment data, mine ownership information, and mining equipment approval information. Data from these systems are provided to companies, organizations, and Federal and State agencies. The Bureau of Labor Statistics, National Institute for Occupational Safety and Health (NIOSH), Office of Surface Mining, U.S. Geological Survey, and the Department of Energy are some of the federal agencies with whom MSHA shares data.

The Mine Act calls for coordination on research between MSHA and NIOSH. MSHA provides NIOSH with its research needs. There is an MSHA–NIOSH Memorandum of Understanding for the joint approval of respirators. NIOSH evaluates a respirator's performance while MSHA evaluates its mine-worthiness. Because NIOSH has facilities for explosives research, MSHA evaluates NIOSH test results as part of MSHA's approval process. MSHA and NIOSH also coordinate on educational activities, and MSHA takes advantage of NIOSH medical expertise in enforcement and standards development.

In 1996, the Secretary of Labor appointed the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers. The committee was comprised of mine operators, labor representatives and members of the medical and academic community. It made 20 major recommendations and outlined more than 100 action steps. This initiative has evolved into the special emphasis Campaign to End Black Lung. Due to concerns raised by NIOSH and the advisory committee over the effectiveness of the

existing respirable dust sampling program, MSHA is taking steps to increase Federal monitoring of exposure limits.

MSHA is working with NIOSH on the development of a machine-mounted continuous respirable dust monitor which is being tested in mines. MSHA also is seeking to develop, through NIOSH, a personal continuous monitoring device that can be worn by individual miners. This will allow users to see "real time" readouts of dust concentrations and allow miners and mine operators to take immediate corrective action.

MSHA interacts with OSHA on several fronts. MSHA provides expertise on evaluating laboratories under OSHA's certification program of National Recognized Testing Laboratories. MSHA provides technical support assistance to OSHA in accident investigations where MSHA expertise can best be put to use. OSHA performs asbestos analysis for MSHA. MSHA and OSHA coordinate on equipment testing, standards, and jurisdictional referrals.

MSHA supported and participated in the Department of Labor's National Campaign to Eliminate Silicosis—launched jointly with the American Lung Association, NIOSH, and OSHA. As a follow-up, MSHA has developed informational materials and sponsored silicosis awareness and prevention seminars throughout the country.

MSHA consults with other Agencies such as OSHA, NIOSH, and the Environmental Protection Agency during the rulemaking process. MSHA seeks peer review of regulations by these Agencies, as appropriate, and performs reciprocal reviews as requested.

MSHA evaluates and approves mine waste dam plans at coal mines. These evaluations are required by and used by many state offices of reclamation and by the Office of Surface Mining. MSHA is a contributor to the National Inventory of Dams and a member of the Interagency Committee on Dam Safety which is headed by the Federal Emergency Management Agency.

MSHA provides seismic location equipment to the Federal Emergency Management Agency for urban search and rescue operations.

MSHA and the Bureau of Alcohol, Tobacco, and Firearms have a Memorandum of Understanding regarding inspections of explosives magazines at mines. MSHA inspectors not only conduct MSHA inspections, but also conduct Bureau of Alcohol, Tobacco, and Firearms inspections according to that Agency's regulations requiring safe, theft-resistant storage of explosives.

Other agencies MSHA coordinates with on enforcement issues are the Environmental Protection Agency, Food and Drug Administration, and Nuclear Regulatory Commission (Memorandum of Understanding on uranium milling). MSHA's National Mine Health

and Safety Academy provides training, such as fire-fighting and accident prevention, to other federal agencies. Other agencies, such as OSHA and the Naval Air Warfare Systems Center for Training and Development, have reciprocated by providing training for MSHA's specialists.

MSHA refers certain delinquent civil penalties owed to Treasury or Justice for servicing as required by the Debt Collection Improvement Act of 1996.

MSHA refers contested civil penalty cases to the Federal Mine Safety and Health Review Commission as required by the Mine Act.

MSHA, in coordination with the Department's Office of the Solicitor, works closely with the Department of Justice through U.S. Attorney offices around the country to prosecute willful violations of mine safety and health laws.

In FY 1998 MSHA, in partnership with Federal, State, and private sector organizations, initiated a National Active and Abandoned Mine Hazard Awareness Campaign to alert children, parents, and outdoor enthusiasts to the dangers posed by these sites. The campaign kick-off, conducted May 16-31, 1999, was recognized by the participants as a much-needed ongoing activity.

Section 7: Program Evaluation

MSHA has an extensive database of information that is available to mine operators, miners, and the public. The database includes information on fatalities and injuries and is broken down for each state by type of mine and cause for each incident. This information is constantly examined for trends, especially high incidence type injuries, illnesses, or hazardous conditions where MSHA needs to dedicate its resources. These databases are the Coal Mine Safety and Health Management Information System, Metal and Nonmetal Mine Safety and Health Management Information System, Mine Accident, Injury, Illness, Employment, and Coal Production System, Educational Policy and Development System, and Assessments System. The Coal and Metal and Nonmetal management information systems capture data directly from MSHA mine inspector reports. The Mine Accident, Injury, Illness, Employment, and Coal Production System data is reported directly from mine operators in accordance with 30 CFR Part 50.

In preparation for the FY 1999 GPRA Annual Report, and as input to the quarterly Departmental reviews, MSHA prepares a quarterly review and analysis of performance objective metrics. Each review consists of data by quarter for each performance measure v. data for comparable timeframes from previous fiscal years and other data that may be of interest to the Assistant Secretary identified throughout the year.

Appendix information includes a review of MSHA resources, review of outputs (e.g. number of inspections), and a review of industry data.

MSHA conducts periodic Accountability Reviews of District organizations. The primary purpose of these reviews is to determine if Coal Mine Safety and Health and Metal and Nonmetal Safety and Health are meeting the statutorily-mandated responsibilities in accordance with Agency policies and directives. The Accountability Review uses, as a methodology, a set of core questions that focus on functional responsibilities encompassing enforcement, training, and special investigation activities, as well as resource utilization and budgetary accountability. The results of the review are used to assess how well a District is fulfilling mandated responsibilities and effectively using resources to accomplish Agency goals and objectives. The results also are used to initiate corrective actions in District activities.

MSHA convenes periodic meetings with District managers and headquarters senior staff to identify and discuss local, regional, or national issues that impact the safety and health of miners and to recommend and/or develop strategies to address these issues.

Section 8: Data Capacity

MSHA has a significant database and collection system that captures most of the information necessary to track the goals in its Strategic Plan. Fatalities are an absolute measure and MSHA is alerted on a daily basis. The nonfatal-days-lost incidence rate has been collected for many years and the database is well established. For the second strategic goal, related to the health of miners, the compliance rates of metal and nonmetal mines and coal mines with the current health standards for noise overexposure and dust/silica overexposure are well established. Baselines for silica and noise in metal and nonmetal mines were established for these indicators in FY 1998. Abatement time for silica overexposure in the metal and nonmetal mines will require further refinement in MSHA data collection process. The coal dust baseline uses FY 1998 MSHA inspector sample data.

- C For performance measures under the strategic goal *Reduce injuries in the Nation's mines:*

Reduce the number of mine fatalities to below the average number recorded for the previous five years; and

Reduce the mine industry nonfatal-days-lost incidence rate to below the average number recorded for the previous five years.

MSHA relies on mine operators and contractors to comply with legal requirements to accurately report injuries and accidents. The degree of compliance may be influenced by the number of audits conducted by MSHA inspectors.

- C For performance measures under the strategic goal *Reduce miners' overexposure to health hazards:*

Reduce the percentage of samples out of compliance with the respirable Coal Mine dust standard.

MSHA's system for determining compliance with the coal respirable dust standard has been in place since the 1970s and procedures are well established to ascertain the accuracy and reliability of the data. Automated devices are used to weigh the inspector dust samples and automatically enter the results into a custom designed program that updates the dust data files daily. A quality control program developed jointly by MSHA and the National Bureau of Standards assures that the weighing process continues to produce reliable results over time, and computer edit checks assure the accuracy of the database.

Reduce the percentage of samples at metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations, and

Reduce the percentage of samples at metal and nonmetal mines out of compliance with the noise standard.

Metal and Nonmetal inspectors have conducted industry-wide sampling since the 1970s. Metal and Nonmetal health policies, sampling procedures, and management information system are well-established and reliable. Automated devices are used to weigh inspector dust samples at MSHA's analytical laboratory, which has American Industrial Hygiene Association accreditation. Computer edits assure the accuracy of management information system data input.

The silica and noise baselines were established

using 1995–1997 data for high-risk occupations. The baseline citability rate is the ratio of citable samples to total samples in the target categories. For comparing current year results to the baseline, the citability rate is adjusted— a weighting of categories—to reflect any changes in the distribution of samples among the target categories.

Pending completion of Y2K Agency efforts, Metal and Nonmetal will further establish the link between personal health samples and citations issued. This database link will enable the agency to track citation issue dates and termination dates and thereby ensure prompt abatement of the overexposures.

Abatement time for silica overexposure.

Section 9: Maintaining an Agency Strategic Management Focus

MSHA Strategic and Performance Plans

MSHA has established a framework that links program initiatives and budget requirements to achievement of strategic goals. The need to establish baselines for performance measurement has given greater focus to annual operating objectives.

Government Performance and Results Act (GPRA)

MSHA is preparing to enhance its ability to develop and implement the cost accounting systems that is a necessary component of measuring and reporting program effectiveness under GPRA.

Human Resources

MSHA reorganized its education and training function with the transfer of field training specialists from Coal Mine Safety and Health and Metal and Nonmetal Mine Safety and Health to its Directorate of Educational Policy and Development. This change optimizes the use of the Agency's education and training resources to improve the quality of training assistance provided to the mining industry. During the course of the review of the education and training function, MSHA carefully considered the recommendations made by management and labor in both the coal and metal and nonmetal mining industries as well as input from MSHA organizations. The reorganization resulted in a new division under the Directorate of Educational Policy and Development, Educational Field Services, and consists of eastern and western field operations.

To meet current and future needs, additional inspectors are being hired to inspect metal and nonmetal mines.

MSHA has made a firm commitment to achieve greater diversity throughout its work force as documented in its Diversity Action Plan. The Agency will continue to work toward overcoming under-representation of minorities and women which is hindered by the low representation of these groups in the private sector mining industry from which MSHA draws its inspectors. The Agency is working to establish pipelines with universities and colleges to recruit entry-level employees and will use this opportunity to attract more minorities and women as well as an aggressive outreach effort in other recruitment efforts.

MSHA performance objectives also are tied to executive, manager, and supervisor performance standards. This link brings greater visibility and accountability to MSHA's program activity leaders.

Information Resources

MSHA plans to continue its efforts to consolidate its various information systems on a common platform, further facilitate electronic filing of public use forms, and extend electronic access to e-mail, Internet, and Agency local area network applications to all employees in order to meet Agency and Departmental goals.

Strategic directions, operational initiatives, and evaluating results are highly dependant on the availability and ease of access to mine safety and health data by MSHA employees and the mining community. The Agency also is striving to reduce the reporting burden on mine operators through

information technology (IT) solutions. The Agency's IT goals as given in the IT Strategic Plan are:

- C Make MSHA data and information more readily available to the public.
- C Ensure that all MSHA systems, equipment, and software are Year 2000 (Y2K) compliant.
- C Achieve a 25% reduction in regulatory information collection burden on the public covering year-end totals between FY 1995 and FY 1998.
- C Establish an MSHA-wide core computing environment in compliance with statutory and policy requirements for a consistent architecture.
- C Ensure that employees are given the appropriate training to use IT tools successfully in performance of their jobs.
- C Enhance the ability of MSHA's employees to carry out the mission of the Agency through improved information technology.

To make electronic information more readily available to both Agency employees and the public over the next five years, MSHA intends to consolidate its various information systems on a common platform, expand its existing Internet capability, and develop an Intranet capability. The Agency is proposing to (1) complete a requirements analysis and functional evaluation of its information systems, and (2) take the initial steps toward improving data accessibility through the Internet, developing an electronic reading room, meeting the requirements of the Americans with Disabilities Act, and implementing an automated document management system. As a

follow-on, MSHA proposes to begin implementation of the recommendations. MSHA also is seeking to reduce the information collection burden on the mining industry by implementing electronic submission of information to MSHA via the Internet.

The following IT goals that are part of the MSHA IT Plan provide primary support to both of the strategic goals in the MSHA Strategic Plan:

- C Enhance public access to MSHA data and information by using the Internet to the maximum extent possible.
- C Migrate MSHA's mainframe computer systems to a common platform that is consistent with the Department of Labor information architecture.
- C Achieve consistency with Federal, Department of Labor and MSHA information architectures to maximize interoperability and data sharing both within and outside the Department of Labor.

The following IT goals provide secondary support to both the strategic goals in the MSHA Strategic Plan:

- C Provide a standards PC/server software platform for all MSHA employees that meets the Department of Labor IT architecture.
- C Evaluate and improve MSHA's communications infrastructure to ensure compliance with Department of Labor IT goals and to provide every MSHA employee with access to the full range of network services.

- C Provide MSHA employees with ready access to common administrative and programmatic data appropriate to their needs.
- C Help employees reach the intermediate proficiency level in any software product or application they use daily.
- C Implement the requirements of Presidential Decision Directive 63 to ensure a secure processing environment for Agency IT resources.

The Assessments Database Management System

MSHA's Assessments Database Management System for tracking civil penalties is currently not in compliance with the Federal Management Improvement Act as identified in a 1996 audit and noted in the Office of the Inspector General's audit report of the Department's FY 1997 financial statements. In conjunction with the Office of the Chief Financial Officer, MSHA established a remediation plan to correct deficiencies, and has completed the first two major milestones. MSHA will use existing in-house resources to complete the project—development and implementation of computer programs

Section 10: Conclusion

The FY 1999–2004 Strategic Plan represents an ongoing process to ensure integration of Departmental strategic priorities with Agency goals, gain greater insights into the long-term issues facing the Agency, tying them to near-term operations, and using them as a basis in budget formulation. The strategic planning process has provided the Agency a tool to turn trends and challenges in the mining environment into specific actions in protecting miner safety and health. The strategic goals and performance objectives provide employees with highly visible, tangible

targets that bring a heightened sense of mission accomplishment.

MSHA has a well-defined mission. This strategic plan is evidence that the Agency has moved from an output-oriented scorecard—e.g., number of inspections, number of samples—to outcome measures that reflect the results of important safety and health initiatives that have a true impact on the Nation's miners.



Appendix A: List of Acronyms

CFR	Code of Federal Regulations
FY	Fiscal Year
GPRA	Government Performance and Results Act
IT	Information Technology
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration

Appendix B: Performance Goals and Baselines

Strategic Goal 1: Reduce injuries in the Nation's mines	
Desired Performance Level by FY 2004	Baseline
1.1 Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.	1.1 Moving 5-year average e.g., FY 1994-1998 average = 92.2
1.2 Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines.	1.2 Moving 5-year average e.g., FY 1994-1998 average = 4.07
Strategic Goal 2: Reduce miners' overexposure to health hazards	
Desired Performance Level by FY 2004	Baseline
2.1 Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard.	FY 1998: 3,773 coal dust samples taken by MSHA inspectors; 489 not in compliance.
2.2 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.	1995-1997 baseline data given GPRA index of 100—based on weighted number of citable samples out of samples taken for the 35 high-risk occupations
2.3 Reduce by 20% the percentage of cases where abatement time for silica overexposures exceeded 6 months in metal/nonmetal mines.	TBD
2.4 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.	1995-1997 baseline data given GPRA index of 100—based on number of citable samples out of samples taken for the 42 high-risk occupations

Appendix C: Data Capacity

Strategic Goal 1: Reduce injuries in the Nation's mines			
Performance Goal	Indicator	Data Source	Comment
1.1 Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.	Number of coal and metal and nonmetal mine fatalities	Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)	Mine operators must contact MSHA immediately when an accident occurs.
1.2 Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines.	Non-fatal-days-lost injury incidence rate	Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)	MSHA has a significant database and collection system. MSHA relies on mine operators and contractors to comply with legal requirements to accurately and timely report injuries and accidents.

Strategic Goal 2: Reduce miners' overexposure to health hazards			
Desired Performance Level by FY 2004	Indicator	Data Source	Comment
2.1 Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard.	Coal dust samples taken by MSHA inspectors not in compliance as percent of total coal dust samples	Coal Safety and Health Management Information System.	Coal dust baseline: FY 1998 inspector samples.
2.2 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.	Weighted number of citable samples out of samples taken for the 35 high-risk occupations	Metal and Nonmetal Safety and Health Management Information System	The silica baseline was established using 1995–1997 data for high-risk occupations. For comparing current year results to the baseline, the citability rate is adjusted—a weighting of categories—to reflect any changes in the distribution of samples among the target categories.
2.3 Reduce by 20% the percentage of cases where abatement time for silica overexposures exceeded 6 months in metal/nonmetal mines.	TBD	Metal and Nonmetal Safety and Health Management Information System. and Assessments Database	This indicator measures the time between the sampling, identification, and notification of overexposure to the time a mine comes into compliance through corrective actions.

2.4 Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.	Weighted number of citable samples out of samples taken for the 42 high-risk occupations	Metal and Nonmetal Safety and Health Management Information System.	The noise baseline was established using 1995–1997 data for high-risk occupations. For comparing current year results to the baseline, the citability rate is adjusted—a weighting of categories—to reflect any changes in the distribution of samples among the target categories.
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